

Remarks

Reconsideration and withdrawal of the rejections set forth in the above-mentioned Official Action in view of the foregoing amendments and the following remarks are respectfully requested.

Claims 103-130 remain pending in the application, with Claims 103, 108, 112, 114, 122 and 126 being independent. Claims 103, 108-114 and 122-127 have been amended herein.

Applicants note with appreciation the indication that Claims 108-113 and 122-130 are allowed. Although Claims 108-113 and 122-127 have been amended herein, all these claims are believed to remain in condition for allowance. Support for the features of the draft printing mode as in amended Claims 108 and 109, for example, can be found in the substitute specification at least at page 68, lines 2-4. The changes to Claims 108-111 and 122-125 were made to improve their form, are not believed to affect their allowability and were not made for any reasons related to patentability. Accordingly, these claims are believed to remain in condition for allowance.

Claims 112 and 126 have been rewritten in independent form. However, rather than reciting that the ejection of the processing liquid is prevented when a test or draft printing mode is carried out, these claims recite that such ejection is prevented when a printing-speed priority mode is carried out. These changes were not made for any reasons related to patentability, but rather to broaden the scope of protection to which Applicants are entitled. Claims 112 and 126, as well as Claims 113 and 127, which depend therefrom, are also believed to remain in condition for allowance.

Thus, Claims 108-113 and 122-130 are believed to remain in condition for allowance. Favorable consideration is requested.

Claims 103-107, 114-118, 120 and 121 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 5,635,969 (Allen). Claim 119 was rejected under 35 U.S.C. § 103 as being unpatentable over Allen in view of U.S. Patent No. 5,476,043 (Okuda et al.). These rejections are respectfully traversed.

As is recited in independent Claim 103, the present invention relates to an ink jet recording apparatus including an ink ejection head, a processing liquid ejection head and control means. The ink ejection head effects image recording on a recording material by ejecting ink. The processing liquid ejection head ejects onto the recording material processing liquid effective to insolubilize the ink. The control means controls permission and prevention of ejection of the processing liquid from the processing liquid ejection head depending on a kind of the recording material in use.

As is recited in independent Claim 114, the present invention relates to an ink jet recording method including a step of preparing an ink ejection head for effecting image recording on a recording material by ejecting ink, a step of preparing a processing liquid ejection head for ejecting onto the recording material processing liquid effective to insolubilize the ink, a step of providing the recording material on which the recording is effected and a step of controlling permission and prevention of ejection of the processing liquid from the processing liquid ejection head depending on a kind of the recording material provided in the recording material providing step.

With the above arrangement and method, because the permission and prevention of ejection of the processing liquid can be controlled in accordance with a kind of recording material, for particular kinds of recording material, such as coated paper, OHP film or the like, processing liquid ejection can be prevented. Accordingly, the processing liquid can be efficiently used.

Allen relates to a method and apparatus for ink jet printing which utilizes a precursor to condition a printing medium prior to application of one or more colorants. The precursor can immobilize the colorants on the recording medium surface in order to eliminate color bleed. However, Allen is not believed to disclose or suggest controlling permission and prevention of ejection of a processing liquid depending on a kind of recording material in use. At most, Allen describes that a proper quantity of the precursor A is applied to the recording material. Control of prevention of ejection of the processing liquid is not disclosed at col. 1, lines 64-67 or col. 2, lines 1-6. Rather, these sections describe defects in a prior art technique using heating of a recording material. In particular, the noted defect is that the energy applied to heat the recording material has to be adapted to the material of the recording paper, e.g., plain paper, special paper or OHP film.

Thus, Allen fails to disclose or suggest controlling permission and prevention of ejection of a processing liquid from a processing liquid ejection head depending on a kind of recording material, as is recited in independent Claims 103 and 114.

Accordingly, Allen fails to disclose or suggest important features of the present invention recited in these independent claims.

Okuda et al. was cited by the Examiner for teaching adding surface active agents to a water solution to decrease the surface tension of a printing ink improving liquid. However, Okuda et al. is not believed to remedy the deficiencies of Allen noted above with respect to independent Claims 103 and 114.

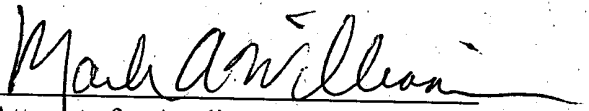
Thus, independent Claims 103 and 114 are patentable over the citations of record. Reconsideration and withdrawal of the §§ 102 and 103 rejections are respectfully requested.

For the foregoing reasons, Applicants respectfully submit that the present invention is also patentably defined by independent Claims 103 and 114. Dependent Claims 104-107 and 115-121 are also allowable, in their own right, for defining features of the present invention in addition to those recited in their respective independent claims. Individual consideration of these dependent claims is requested.

Applicants submit that the present application is in condition for allowance. Favorable reconsideration, withdrawal of the rejections set forth in the above-noted Office Action, and an early Notice of Allowance are requested.

Applicants' undersigned attorney may be reached in our Washington, D.C.
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Respectfully submitted,


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